

IN THE UNITED STATES PATENT AND TRADE MARK OFFICE

In re PATENT APPLICATION of :

Akihiro ICHIGE et al.

Group Art Unit : 1773

Serial No. : 09/442,416

Examiner : D.S. Nakarani

Filed : December 1, 1999

For : MULTILAYER FILM



DECLARATION UNDER 37 C.F.R. 1.132

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

I, Koichi YANASE, a citizen of Japan, residing at 1-9-923, Yushudainishi, Ichihara-shi, Chiba, Japan, do hereby declare and say that:

1. I am a member of a team which has been researching and developing a processing technology, and therefore I am familiar with the subject matter disclosed in the above-identified application;

2. I was graduated from Doshisha university in 1992, and since then, I have been employed by Sumitomo Chemical Company, Limited, where I have been engaged in the research and development works on polymers at Plastics Technical Center of said company;

3. I have read and sufficiently understood the Official Action with the mailing date of September 11, 2003; and

4. In order to attain the purpose as below, the following explanation was made.

## 1. Purpose

It is a purpose to overcome rejections under 35 USC 112, first paragraph by explaining how the present invention having an increased tear strength in the direction of stretching is possible when the film is produced by the conventional methods described in the examples.

## 2. Explanation

### (1) MEILHON 677

MEILHON 677 is a film composed of at least one polyolefin-layer and at least one ionic copolymer-layer, and it is disclosed that (1) tear strength of said film is higher in an MD direction than in a TD direction, and (2) said tear property is obtained by (i) drawing a molten resin in a specific drawing ratio to make a film, and then, (ii) cooling the film. It is understood that said tear property results from the ionic copolymer. Namely, MEILHON 677 discloses only that said tear property is obtained by drawing a molten resin containing an ionic copolymer-layer. Therefore, MEILHON 677 does not disclose an idea of a **stretch** processing, wherein the term "stretch processing" means a process comprising the steps of (i) heating an existing film, and then (ii) stretching the heated film. Further, the description (column 4, line 42) mentions only that EVA (ethylene-vinyl acetate copolymer) is one of preferable materials for the above-mentioned polyolefin-layer, and does not mention that EVA results in a tear property. A tear property of MEILHON 677 depends only upon (in other words, the essence of a tear property of MEILHON 677 exists only in) the ionic copolymer.

### (2) Present invention

The film according to the present invention is a uniaxially **stretched** film, which is obtained by uniaxially **stretching** a film comprising the propylene-based resin-layer and the ethylene-based resin-layer at a specific temperature range, namely, a range of from a melting point of the ethylene-based resin to a melting point of the propylene-based resin, wherein the propylene-based resin has a molecular orientation in a stretching direction, and

the ethylene-based resin scarcely has molecular orientation. Accordingly, the laminated article containing different molecular orientation-carrying respective layers makes a mechanical interaction based on anisotropy, and as a result, there can be obtained high tear strength in a stretching direction. A tear property in the present invention depends upon (in other words, the essence of a tear property in the present invention exists in) uniaxially **stretching** a laminated article comprising the propylene-based resin-layer and the ethylene-based resin-layer at a specific temperature range in order to give a molecular orientation different from each other to each layer.

I hereby declare further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed this 27th day of February, 2004

Koichi Yanase

Koichi YANASE